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Final Exam



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No. of Questions: 1
Model: 2

Answer All Questions

Question [1]: Multiple Choice Questions (60 degrees)

1. A _____ constraint requires that an entity can belong to **more than one** lower-level entity set.
A) **Overlap** B) Disjointness C) Relational D) Uniqueness
2. There are similarities between the instructor entity set and the secretary entity set in the sense that they have several attributes that are conceptually the same across the two entity sets: namely, the identifier, name, and salary attributes. This process is
A) Similarity B) Specialization C) **Generalization** D) Commonality
3. All aggregate functions except _____ ignore null values in their input collection.
A) Count(attribute) B) **Count(*)** C) Sum D) Avg
4. The entity set person is classified as student and employee. This process is called _____.
A) Similarity B) Generalization C) **Specialization** D) Inheritance
5. The attribute that can be arranged into hierarchy is called _____-attribute
a) **Composite** b) Multivalued c) Derived d) Simple
6. The primary key must be
A) Not null B) Unique C) **Both Unique and Not null** D) Either Unique or Not null
7. When a relation is in 2NF and there is _____, it is in 3NF.
a) Transitive Dependency b) **No Transitive Dependency** c) Relational Dependency d) No Relational Dependency
8. A relation is in _____ if it is in Boyce Codd normal form and does not have any multivalued dependencies.
a) 1NF b) 2NF c) 3NF d) **4NF**
9. Neither multivalued nor composite attributes, nor their combinations, may be used in the _____ normal form.
a) **First** b) Second c) Third d) fourth
10. 5 NF is designed to cope with :
a) transitive dependency b) **join dependency** c) multi valued dependency d) all of the above
11. A table is in 2NF if it is in 1NF and if :
a) no column that is not a part of the primary key is dependent on only a portion of the alternate key.
b) **no column that is not a part of the primary key is dependent on only a portion of the primary key**
c) no column that is not a part of the primary key is dependent on only a portion of the foreign key d) none of these
12. Related fields in a data base are grouped to form
a) Data file b) **Data record** c) Menu d) Bank
13. Which of the following is true ?
a) **A relation in BCNF is always in 3NF.** b) A relation in 3NF is always in BCNF.
c) BCNF and 3NF are same. d) A relation in BCNF is not in 3NF
14. Functional dependencies are a generalization of :
a) **Key dependencies** b) Relation dependencies c) Database dependencies d) None of these
15. The distinguishable parts of a record are called
a) Files b) Data c) **Fields** d) Database
16. Which of the following is true regarding Referential Integrity?
a) Every primary-key value must match a primary-key value in an associated table
b) Every primary-key value must match a foreign-key value in an associated table
c) **Every foreign-key value must match a primary-key value in an associated table**
d) Every foreign-key value must match a foreign-key value in an associated table
17. There are certain packages that allow people to define data items, place these items in particular records, combine the records into designated files and then manipulate and retrieve the stored data. What are they called?
a) Data storage system b) **Database management system** c) Batch processing system d) Data communication package
18. _____ refers to the correctness and completeness of the data in a database?
Data security b) **Data integrity** c) Data constraint d) Data independence

19. What name is given to the collection of facts, items of information or data which are related in some way?
a) Database b) Directory information c) Information tree d) Information provider
20. In SQL, which command is used to changes data in a table?
a) UPDATE b) INSERT c) BROWSE d) APPEND
21. Which command is used to remove a table from the database in SQL?
a) DELETE TABLE b) DROP TABLE c) ERASE TABLE d) UNATTACH TABLE
22. Minimal Super keys are called
a) Schema keys b) Candidate keys c) Domain keys d) Attribute keys
23. Logical design of database is called
a) Database Instance b) Database Snapshot c) Database Schema d) All of the above
24. Which of the following is correct regarding Aggregate functions?
a) It takes a list of values and returns a single values as result b) It takes a list of values and returns a list of values as result
c) It takes a single value and returns a list of values as result d) It takes a single value and returns a single value as result
25. A relation that has no partial dependencies is in which normal form
a) First b) Second c) Third d) BCNF
26. Which of the following is a database administrator's function?
a) Database design b) Backing up the database c) Performance monitoring d) All of the above
27. Which of the following is not a level of data abstraction?
a) Physical Level b) Critical Level c) Logical Level d) View Level
28. In mathematical term Table is referred as
a) Relation b) Attribute c) Tuple d) Domain
29. The entity relationship set is represented in E-R diagram as
a) Double diamonds b) Undivided rectangles c) Dashed lines d) Diamond
30. _____ is a collection of operations that perform s single logical function in a database application
a) Transaction b) Concurrent operation c) Atomicity d) Durability
31. The language used in application programs to request data from the DBMS is referred to as the
a) DML b) DDL c) DCL d) SDL
1. A collection of interrelated data and a set of programs that allow users to access and modify data is known as—
a) Data management system b) Database system c) Data -process system d) Data - program system
32. The descriptive property possessed by each entity set is _____
a) Entity b) Attribute c) Relation d) Model
33. _____ is used to hide storage details and present the users with a conceptual view of the database.
a) data dictionary b) DBMS catalog c) data model d) data independence
34. _____ Responsible to define the content, the structure, the constraints, and functions or transactions against the database
a) Database administrators b) Database Designers c) end user d) operator
35. A recursive relationship is a relationship between an entity and _____.
a. itself b. a subtype entity c. an archetype entity d. an instance entity
36. A ternary relationship is so called because In contains two entities and one association between them.
a. true b. false three
37. Capacity to change the schema at one level of a database system without having to change the schema at the next higher level
a) data dictionary b) DBMS catalog c) data model d) data independence
38. Which of the following gives a logical structure of the database graphically?
a) Entity-relationship diagram b) Entity diagram c) Database diagram d) Architectural representation
39. The collection of information stored in a database at a particular moment is called as
a) schema b) instance of the database c) data domain d) independence
40. Which of the following enables us to view data from a table based on a specific criterion?
a) Form b) Query c) Macro d) Report
41. Which database level is closest to the users?
a) External b) Internal c) Physical d) Conceptual

42. --- specifies that every entity in the superclass must be a member of some subclass in the specialization
 a) total participation b) partial participation **c) total completeness** d) partial completeness
43. Which language has recently become the de-facto standard for interfacing application programs with relational database system?
 a) Oracle **b) SQL** c) 4GL d) None of the above
44. In ---, a subclass can be subclass of more than one superclass
 a) Hierarchy **b) lattice** c) category d) none
45. A subclass with more than one superclass is called a ---
 a) super class b) special subclass **c) shared subclass** d) super subclass
46. A category member must exist in --- of its superclasses
 a) at most one b) more than one **c) at least one** d) less than one
47. The set of all the entities that have the same attributes is classified as ---
 a) entity type **b) entity set** c) attribute type d) function type
48. The detailed description on entity constraints, entity relationships and entity types is expressed in ---
 a) low level design b) physical design **c) conceptual design** d) view design
49. The identifying relationships in the ER diagram are represented by ---
 a) double oval b) double square c) double rectangle **d) double diamond**
50. The constraint which specifies the minimum of relationship instances is classified as ---
a) participation constraint b) cardinality ratio c) extensive constraint d) none
51. Total participation is also called ---
 a) recursive dependency **b) existence dependency** c) recursive independency d) existence independency
52. In constructing ER diagram, the double ovals are used to denote --- attributes
a) multi valued attribute b) composite attribute c) atomic attribute d) derived
53. The set of the key attributes that identify weak entities related to some owner entities is classified as ---
 a) foreign key b) primary key **c) partial key** d) string key
54. The HAVING clause does which of the following?
 a). Acts EXACTLY like a WHERE clause.
 b). Acts like a WHERE clause but is used for columns rather than groups.
c). Acts like a WHERE clause but is used for groups rather than rows.
 d). Acts like a WHERE clause but is used for rows rather than columns.
55. An entity in A is associated with at most one entity in B. An entity in B, however, can be associated with any number (zero or more) of entities in A.
a) One-to-many b) One-to-one c) Many-to-many d) Many-to-one
56. The refinement from an initial entity set into successive levels of entity subgroupings represents a --- design process in which distinctions are made explicit.
 a) Hierarchy b) Bottom-up **c) Top-down** d) Radical
57. Condition defined generalization constraint is also said to be ---
a) Attribute defined b) Constraint defined c) Value defined d) Undefined
58. A functional dependency is a relationship between or among ---
 a). Entities b). Rows **c). Attributes** d). Tables
59. The description of structure and organization of data in a database is contained in:
 A. Data mine **B. Data dictionary** Metadata C. Structured query language D. None
60. What type of join is needed when you wish to include rows that do not have matching values?
 a) Equi-join b) Natural join **c) Outer join** d) All of the Mentioned
61. A join in which the joining condition is based on equality between values in the common columns is called ---
 a) Equi-join b) Uni-lateral join c) Natural join **d) Both (a) and (c) above**
62. A relationship between the instances of a single entity type is called a --- relationship.
 a) Ternary b) Primary c) Binary **d) Unary**

63. In the context of a database table, the statement "A determines B" indicates that.....

- a) Knowing the value of attribute A you can not look up the value of attribute B
- b) You do not need to know the value of attribute A in order to look up the value of attribute B
- c) Knowing the value of attribute B you can look up the value of attribute A
- d) Knowing the value of attribute A you can look up the value of attribute B

64. SELECT name

FROM instructor

WHERE salary IS NOT NULL;

Selects

- a) Tuples with null value
- b) Tuples with no null values
- c) Tuples with any salary
- d) All of the mentioned

65. Using the _____ clause retains only one copy of such identical tuples.

- a) Null
- b) Unique
- c) Not null
- d) Distinct

66. SELECT name _____ instructor name, course id

FROM instructor, teaches

WHERE instructor.ID= teaches.ID;

Which keyword must be used here to rename the field name?

- a) From
- b) Rename
- c) As
- d) Join

67. SELECT emp_name

FROM department

WHERE dept_name LIKE ' _____ Computer Science';

Which one of the following has to be added into the blank to select the dept_name which has Computer Science as its ending string?

- a) %
- b) _
- c) ||
- d) \$

68. SELECT * FROM employee WHERE dept_name="Comp Sci";

In the SQL given above there is an error. Identify the error.

single quote not double quote

- a) Dept_name
- b) Employee
- c) "Comp Sci"
- d) From

69. SELECT instructor. *

FROM instructor, teaches

WHERE instructor.ID= teaches.ID;

This query does which of the following operation?

- a) All attributes of instructor and teaches are selected
- b) All attributes of instructor are selected on the given condition
- c) All attributes of teaches are selected on given condition
- d) Only some attributes from instructed and teaches are selected

70. The _____ clause allows us to select only those rows in the result relation of the _____ clause that satisfy a specified predicate.

- a) Where, from
- b) From, select
- c) Select, from
- d) From, where

71. INSERT INTO employee _____ (1002,Joey,2000);

- a) Table
- b) Values
- c) Relation
- d) Field

72. Which of the following statement is true?

- a) TRUNCATE free the table space while DELETE does not.
- b) Both TRUNCATE and DELETE statements free the table's space.
- c) Both TRUNCATE and DELETE statement does not free the table's space.
- d) DELETE free the table space while TRUNCATE does not.

73. Which command is used to change the definition of a table in SQL?

- a) CREATE
- b) UPDATE
- c) ALTER
- d) SELECT

74. What is the difference between a PRIMARY KEY and a UNIQUE KEY?

- a) Primary key can store null value, whereas a unique key cannot store null value.
- b) We can have only one primary key in a table while we can have multiple unique keys
- c) Primary key cannot be a date variable whereas unique key can be
- d) None of these

75. _____ is NOT a type of constraint in SQL language?

- a) FOREIGN KEY
- b) PRIMARY KEY
- c) UNIQUE
- d) ALTERNATE KEY

76. Find the cities name with the condition and temperature from table 'whether' where condition = sunny or cloudy but temperature ≥ 60 .
- SELECT city, temperature, condition FROM weather WHERE condition = 'cloudy' AND condition = 'sunny' OR temperature ≥ 60 ;
 - SELECT city, temperature, condition FROM weather WHERE condition = 'cloudy' OR condition = 'sunny' OR temperature ≥ 60 ;
 - SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' OR condition = 'cloudy' AND temperature ≥ 60 ;
 - SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' AND condition = 'cloudy' AND temperature ≥ 60 ;
77. _____ is a constraint that can be defined only at the column level?
- UNIQUE
 - NOT NULL
 - CHECK
 - PRIMARY KEY
78. In E-R diagram, generalization is represented by _____
- Ellipse
 - Dashed ellipse
 - Rectangle
 - Triangle
79. Which of the following query will result in an error?
- select dept_id, avg(salary) from employees group by dept_id;
 - select avg(salary) from employees group by dept_id;
 - select dept_id, job_id, avg(salary) from employees group by dept_id, job_id;
 - select dept_id, count(name) from employees; didn't include dept_id into the group by statement
80. To include integrity constraint in an existing relation use :
- Create table
 - Modify table
 - Alter table
 - Drop table
81. Foreign key is the one in which the _____ of one relation is referenced in another relation.
- Foreign key
 - Primary key
 - References
 - Check constraint
82. Which of the following is used to delete the entries in the referenced table when the tuple is deleted in course table?
- Delete
 - Delete cascade
 - Set null
 - All of the mentioned
83. Which is the process of breaking a relation into multiple relations:
- Functional dependency
 - Database modeling
 - Normalization
 - composition
84. Functional dependencies are classified as _____ on the left.
- Dependent
 - Determined
 - Determinants
 - Database
85. By normalizing relations or sets of relations, one minimizes ____.
- Data
 - Fields
 - Redundancy
 - Database
86. In addition to removing undesirable characteristics, normalization also eliminates _____ anomalies.
- Insert
 - Update
 - Delete
 - All of the above
87. A common approach to normalization is to _____ the larger table into smaller tables and link them together by using relationships.
- Add
 - Subtract
 - Multiply
 - Divide
88. Which of the following is a type of Normal Form? Boyce Cod Normal Form
- ACNF
 - BCNF
 - CCNF
 - DCNF
89. For each attribute of a relation, there is a set of permitted values, called the _____ of that attribute.
- Schema
 - Relation
 - Set
 - Domain
90. Which one of the following uniquely identifies the elements in the relation?
- Composite key
 - Secondary Key
 - Primary key
 - Foreign key

Best wishes